Information/Discussion Paper

Overview and Scrutiny - 29th September 2025

Partnership working for flood risk mitigation

This note contains the information to keep Members informed of matters relating to the work of the Committee, but where no decisions from Members are needed

1. Why has this come to scrutiny?

1.1 The Overview and Scrutiny committee have called the Cheltenham Borough Council (CBC) flood risk management team to better understand partnership working to improve flood mitigation in the Borough.

2. Summary of the Issue

2.1 Flooding can cause damage to property and infrastructure. The risk and impacts of flooding can result in significant stress to people and communities. Flooding is the most common and widespread natural hazard to occur in the UK. In catchments such as Cheltenham, urbanisation and historic modification to watercourses has increased flood risk in many areas.

2.2 Climate change is expected to increase the frequency and severity of extreme weather events such as flooding and drought. Cheltenham will likely experience wetter winters and hotter summers. Summers are expected to be drier with regards to total rainfall, but high intensity convective storms are likely to become more frequent. These are the storms that pose greatest flood risk to the small, urbanised Cheltenham catchments (flash flooding). Cheltenham is identified nationally as a flood risk area *"because the risk of flooding from surface water is significant nationally for people, the economy or the environment (including cultural heritage)."* The River Chelt through Charlton Kings has been designated as a rapid response catchment by the Environment Agency as it has the potential to cause flash flooding which poses a threat to life[1].

2.3 There is no single body responsible for managing flood risk in the UK. DEFRA is the national policy lead, and these policies are delivered by Risk Management Authorities (RMA's). The RMA's who operate in Cheltenham are:
1. Gloucestershire County Council (GCC) - the Lead Local Flood Authority (LLFA).
2. The Environment Agency.
3. Cheltenham Borough Council.
4. Severn Trent Water.

[1] Severn River Basin District Flood Risk Management Plan 2021 to 2027

5. Gloucestershire County Council – Highways.

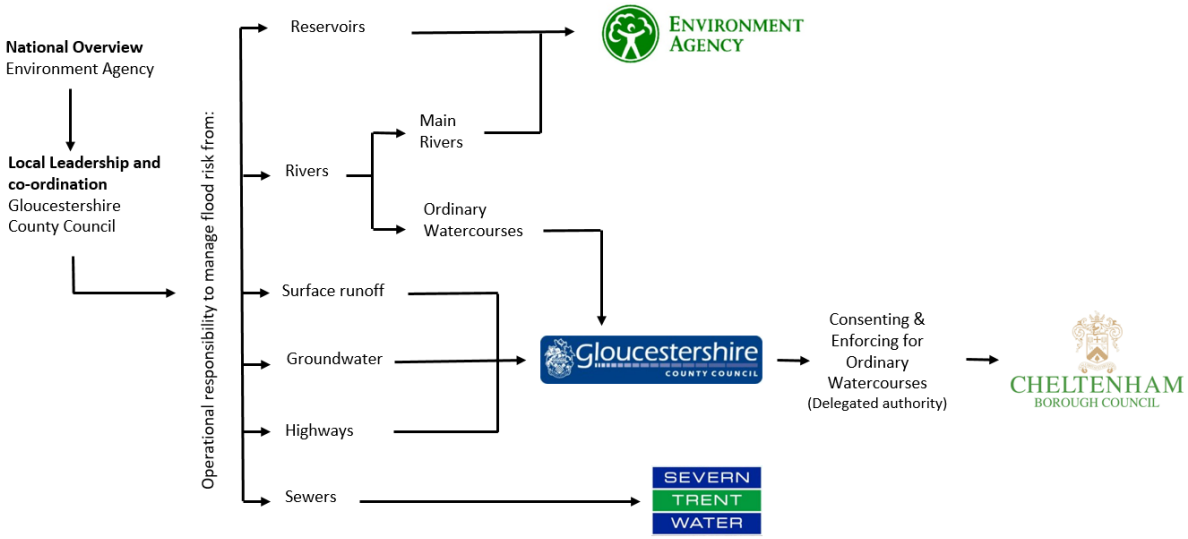
2.4 The CBC flood risk management team is currently 1.4 full time equivalent (flood risk engineer and climate and flooding support officer) and are part of the CBC Climate, flooding and decarbonisation team. Flood risk management works include collaboration with other council departments including planning, emergency planning, greenspaces, and property. The role of CBC in flood risk mitigation has previously been detailed in the 2024 overview and scrutiny report[2].

2.5 This report summarises how CBC work collaboratively with RMA partners and other organisations involved with flood risk management and includes case studies of successful partnership outcomes that could be applied elsewhere.

3. Summary of evidence/information

3.1 Figure 1 shows the operational responsibilities of RMAs in Cheltenham. For rivers, the relevant RMA has permissive powers, but not a duty, to carry out maintenance and improvement works. Maintenance is usually the responsibility of riparian landowners unless recognised formally as an asset managed by an RMA. Larger rivers are designated as 'Main River,' and these are shown on the Main River Map[3]. All other rivers, streams, drainage channels and ditches are known as Ordinary Watercourses.

3.2 *Figure 1: Overview of RMA operational responsibilities to manage flood risk in Cheltenham.*



3.3 CBC are the riparian owner for numerous reaches and assets on main rivers in Cheltenham and in such instances work in collaboration with the Environment Agency to ensure assets and flood alleviation schemes remain fit for purpose.

3.4 The Gloucestershire RMA network (All RMAs in Gloucestershire) continue to meet on a quarterly basis. This group remains the foremost flood risk management network in

[2] https://democracy.cheltenham.gov.uk/documents/s47253/2024_03_25_OS_Flood_Risk_Management_Overview.pdf
[3] Main River Map

the county and acts strategically to combine resources, share learning and deliver on common objectives.

3.4.1 Mitigations since the 2007 floods implemented by the Gloucestershire RMA network are summarised in Appendix A. Some of the flood alleviation schemes and drainage improvements are an outcome of the 2011 Cheltenham Surface Water Management Plan[4] which provided a long-term action plan framework for RMAs to understand risk and agree cost-effective mitigations. Mitigations are not limited to new flood schemes and include ensuring existing assets are fit for purpose and ensuring flood resilience and sustainable drainage design is incorporated into new development through planning consultation. An increase in these duties means resource availability is currently the main constraint on the number of new CBC-led flood alleviation schemes that can be progressed.
The summary of mitigations in Appendix A shows we more resilient compared to 2007 but there are still areas where flood alleviation has not been implemented, and properties are identified at risk. There also needs to be an understanding that there may not be cost-effective alleviation solutions at a communal scale for all areas. Effective community engagement is therefore also vital to ensure our communities understand their risk, prepare, and consider property-level resilience measures where required.

3.5 The flood risk management delivery sub-group of the RMA network also meets quarterly. This group consists of district flood officers and relevant members of the GCC flood risk management team to discuss and share knowledge on technical matters relating to planning consultations and consenting and enforcement.

3.5.1 GCC have sub-contracted consenting and enforcement duties for ordinary watercourses to CBC and have similar agreements with other districts in the county. CBC therefore work directly with the GCC flood risk management team on land drainage consents and any issues occurring on ordinary watercourses. The two teams also work collaboratively to support each other's flood mitigation functions, investigations, and community engagement. CBC are part of the Gloucestershire Natural Flood Management Partnership[5] and an NFM scheme is currently being planned on the Lilley Brook.

3.6 The CBC flood risk management team regularly work closely with the GCC highways local area managers in Cheltenham and escalate more significant drainage and flooding issues relating to the highway to the infrastructure and drainage team.

3.7 The CBC flood risk management team work closely with the CBC emergency planning team who are category 1 responders for emergencies and are on the Local resilience forum[6]. The flood risk management team have roles in the CBC flood response plan before, during, and after flood events, which are summarised below:

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[4] https://www.gloucestershire.gov.uk/plans-policies-procedures-and-manuals/surface-water-management-plans/

[5] https://www.gloucestershire.gov.uk/planning-and-environment/flood-risk-management/flooding-information/natural-flood-management/the-gloucestershire-natural-flood-management-partnership/the-gloucestershire-natural-flood-management-partnership/

[6] Local resilience forums (LRFs) are multi-agency partnerships made up of representatives from local public services, including the emergency services, local authorities, the NHS, the Environment Agency and others. These agencies are known as Category 1 Responders, as defined by the Civil Contingencies Act.

Before: Inspect and maintain CBC flood assets and watercourses. Monitor warnings and river levels.
During: Liaison with RMA partners, incident logging, inspection, and reactive maintenance (where safe to do so).
After: Post-event inspection and maintenance, investigation and reporting, liaison with RMA partners.

3.8 CBC coordinate a volunteer network of Flood wardens, with support from Gloucestershire Rural Community Council. The network is currently 14 volunteers, but we have a target for 2025-2026 to recruit and grow the network. Flood wardens are a vital link between the community and RMA's and act as eyes and ears on the ground to report issues to relevant authorities before, during, and after flood events. They also help with communicating flood information within their community to build resilience and help support vulnerable residents. Some of the flood wardens represent parish councils and neighbourhood groups in Cheltenham.

3.9 CBC flood risk management have also recently been working closely with the Gloucestershire Wildlife Trust on sustainable drainage and Natural Flood Management interventions (NFM) and supporting the volunteer group Guardians of the River Chelt with their water quality initiatives.

4. Case studies and next steps

4.1 A case study that could be adopted in other wards where there is a justified need is the Warden Hill flood risk management working group. The group was conceived by Borough Councillors and meets 2-4 times a year. Meetings are attended by Councillors (County, Borough and Parish), the local highways manager, CBC and GCC flood risk management, and Severn Trent Water. The meetings have been successful in ensuring actions relating to asset maintenance, surveys and improvements are completed. Other success stories from the group include:

4.1.1 Concept design for nature-based sustainable drainage systems (SUDS) on Salisbury Avenue, which was taken forward by the Gloucestershire Wildlife Trust as part of their Waterscapes project[7]. The Trust have now completed construction of 3 raingardens outside the Salisbury Avenue shops and a green roof bus shelter.

4.1.2 A '*Green your property to reduce flooding in your community"* infographic created by CBC and distributed at both an engagement event in Warden Hill and 1000 copies were delivered to households by the parish council.

4.1.3 Working with Severn Trent Water on surveys to better understand the connectivity and condition of surface water sewers in Warden Hill.

4.2 Reporting flooding to the correct RMA can be confusing and Councillors are therefore encouraged to utilise and share our 'Who does what' leaflet which is available online[8]. As we are a small team, we look to our flood warden network to support us when distributing engagement material and are currently looking for more volunteers to join

[7] https://www.gloucestershirewildlifetrust.co.uk/what-we-do/current-projects/gloucester-and cheltenham-waterscapes-project
[8] https://www.cheltenham.gov.uk/downloads/file/10225/who_does_what_leaflet.

our flood warden network[9].

4.3 Incidents of flooding should be reported to inform local flood risk management decisions and any funding allocation to proposed alleviation schemes. This should be done using GCC's Flood online reporting tool[10]. RMA's have access to the records on the tool.

4.4 Drainage and flooding issues on the highway should be reported to GCC highways using fixmystreet Gloucestershire[11]. Councillors have access to a bespoke councillor's email service for GCC Highways. For updates on schemes relating to other authorities the best way to contact relevant local teams are:
GCC flood risk management team: floodriskmanagement@gloucestershire.gov.uk
CBC flood risk management team: flooding@cheltenham.gov.uk
Environment Agency: pso.midswest@environment-agency.gov.uk
Severn Trent: https://www.stwater.co.uk/help-and-contact/contact-us/

4.5 GCC have a comprehensive Flood guide with information for communities, and Information for developers on their website.

Contact Officer	James Mogridge, Flood Risk and Drainage Engineer, flooding@cheltenham.gov.uk
Accountability	Councillor Richard Pineger, Cabinet Member for Climate Emergency

[9] https://www.cheltenham.gov.uk/info/87/flooding/1679/flood_wardens
[10] https://fort-gloucestershire.dorsetcouncil.gov.uk/
[11] https://fixmystreet.gloucestershire.gov.uk/

5. Appendix A: Mitigations since 2007

5.1 Mitigations described in this section include Flood Alleviation Schemes (FAS), maintenance, improved understanding of risk, community resilience, appropriate development, and infrastructure.

5.2 Flood Alleviation Schemes (FAS):

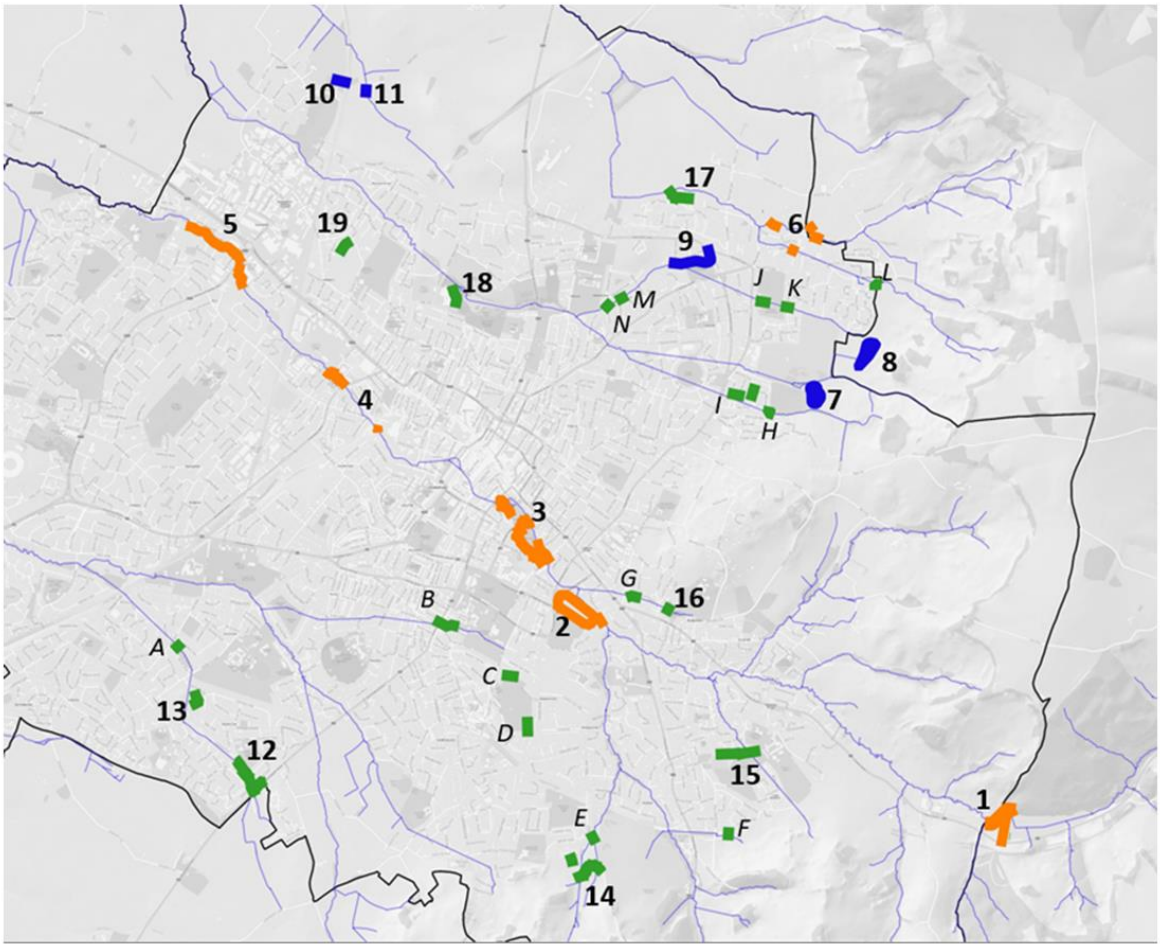
Figure 2 highlights FAS that have been implemented since 2007. The River Chelt FAS was in place in 2007 but has had improvements made since. The figure highlights the lead authority for each scheme but in almost all cases these schemes have been delivered and funded through partnerships. Sewer capacity improvements made by Severn Trent Water are not shown on the map but there has been over £7 million invested across Cheltenham[12] and there continues to be significant investment made. GCC Highways drainage improvements are also not shown, of which there are numerous. CBC also coordinated the implementation of individual property flood resilience measures at a total of 45 properties across Whaddon and Charlton Kings using government funding.

Figure 2 also shows drainage improvement schemes implemented by CBC to reduce flood risk since 2007. This includes upgrading culvert capacity, debris screens (to mitigate culvert blockages) and retrofit of Sustainable Drainage Systems (SUDS) into the urban environment. An example being the Priors Farm Estate in Oakley (shown below) where retrofit SUDS provide water quality, biodiversity, and amenity benefits as well as flood risk management[13].

[12] Severn River Basin District Flood Risk Management Plan 2021 to 2027.
[13] Images from project case study: https://www.susdrain.org/case-studies/pdfs/suds_awards/007_18_03_29_susdrain_suds_awards_priors_farm_estate_suds_retrofitting_project_cheltenham.pdf

In addition to completed schemes, the current schemes are at either a feasibility or design stage: Cromwell road SUDS retrofit (GCC), Warden Hill SUDS retrofit (GWT/CBC), Natural Flood Management feasibility at Upper Hearne Brook (CBC/GCC).

5.3 *Figure 2: Flood alleviation schemes (FAS) and drainage improvements implemented.*



EA scheme
GCC scheme
CBC scheme
River network
Borough boundary

Flood alleviation schemes

1. Dowdeswell reservoir
2. Cox's Meadow
3. Sandford Park
4. Flood Walls
5. Keirle Walk Flood Wall
6. Prestbury
7. Whaddon Priors
8. Whaddon Noverton
9. New Barn Close
10. Swindon Village School
11. Hyde Lane Culvert
12. Warden Hill Farmfield
13. Warden Hill Weavers
14. Southfield Brook
15. Beeches
16. St Edwards School
17. Apple Orchard Linden Close
18. Leisure Centre
19. Stanwick Gardens

Drainage improvements and SUDS retrofit

A. Alma road debris screen
B. Naunton parade culvert
C. Naunton park SUDS
D. Asquith Allotments
E. Sandy Lane debris screen
F. Timbercombe gate debris screen
G. Oak Avenue culver upgrade
H. Imjin Road debris screen
I. Priors Farm estate SUDS
J. St Marys School debris screen
K. Fawley Drive debris screen
L. Noverton Brook debris screen
M. Oakland Avenue debris screen
N. Overbrook Drive debris screen

5.4 Maintenance of watercourses and assets

It is vital that flood risk management assets remain 'fit for purpose.' The EA maintains an asset condition database[14] on 'Main Rivers.' CBC have maintained watercourses and assets we are responsible for and have also used permissive powers to carry out maintenance to reduce flood risk in watercourses where riparian landowners cannot be identified.

In 2023 the CBC flood officer obtained EA asset inspection accreditation and the flooding team have developed a maintenance plan to catalogue all CBC watercourses and flood assets and make informed risk-based decisions on maintenance. Natural Flood Management (NFM) has been successful in the UK and is becoming increasingly popular. Through mimicking nature's own methods, downstream impacts of flooding can be reduced through a wide range of land and watercourse management techniques to slow the flow and hold back water, where appropriate to do so. Obstructions, whether natural or human-caused, may have a positive effect by slowing flows and reducing flood risk downstream whilst creating habitat. Consideration therefore needs to be given to the implications of both removing obstructions and leaving them in situ. This will depend on location within the catchment (with upstream areas usually being more strategic areas to hold back water) and the adjacent receptors at risk. Within the maintenance plan, some reaches of watercourse are therefore identified with a natural based approach to maintenance. This aligns with CBC aspirations for improving biodiversity and reducing carbon emissions. Next steps for the maintenance plan are to include long term asset costs and incorporate the plan into the CBC risk framework.

The LLFA maintain the Whaddon FAS and provide a waterside living leaflet for

[14] https://environment.data.gov.uk/asset-management/

riparian watercourse landowners. GCC highways have developed a risk-based approach to their gully cleaning programme[15].

5.5 Improved understanding of risk

Technological advances have significantly improved flood modelling and mapping of flood risk. The LLFA maintain a Flood Online Reporting Tool (FORT)[16]. CBC use risk maps published by the EA and FORT to make informed decisions across planning, maintenance, investigations, and feasibility for alleviation schemes.

The EA and Met office created the national flood forecasting centre in 2009 and the UK is now considered amongst the world leaders in flood forecasting. There are now nine live river level gauges in Cheltenham and CBC uses this data, daily Flood Guidance Statements, and the EA's flood warning service to inform decisions regarding emergency planning and post-event investigations.

Understanding risk is an area of continuous improvement and there is still much progress to be made, particularly in surface water flood risk mapping and forecasting under different climate scenarios.

5.6 Community resilience

The EA maintain a flood alert and warning service within Cheltenham and the LLFA and local resilience forum provide an online *Flood Guide*[17] and an *Are you ready?*[18] guide for *residents*, respectively. The flood guide includes property level flood protection guidance for home/business owners.

CBC flooding attend community events, update website guidance, produce infographics and coordinate a network of twelve flood wardens who provide additional

[15] https://www.gloucestershire.gov.uk/highways/roads/flooding-drainage-and-gullies/
[16] https://swim.geowessex.com/glos/
[17] https://www.gloucestershire.gov.uk/planning-and-environment/flood-risk-management/flooding-information/
[18] https://glosprepared.co.uk/wp-content/uploads/2018/11/Are-you-ready-booklet-Web-version.pdf

resilience to their communities before, during and after events.

The Local Resilience Forum includes CBC, who are category 1 responders for emergencies. CBC flood plans are coordinated by the emergency planning team, but the CBC flooding team have responsibilities delegated within the plans. before, during and after flood events, which are summarised below:

Before: Inspect and maintain CBC flood assets and watercourses. Monitor warnings and river levels.

During: Liaison with partners, incident logging, inspection, and reactive maintenance (where safe to do so).

After: Post-event inspection and maintenance, investigation and reporting, liaison with partners.

5.7 Infrastructure mitigations

Following the 2007 floods, Severn Trent Water have mitigated water supply security by investing in flood defences at the Mythe water treatment works and a 17km long bypass water main to improve overall network resilience.

National grid instigated a flood resilience programme to ensure that its electricity substations are protected and remain operational during extreme flood events. This included construction of a new flood wall at the Walham substation.